

IN THE CLAIMS:

Please note that all claims currently pending and under consideration in the referenced application are shown below. This listing of claims will replace all prior versions and listings of claims in the application.

Please cancel claims 2, 3, 5, 14 through 19, 25, 26, 28, 34, and 37 through 42 without prejudice or disclaimer.

Please amend claims 1, 4, 6 through 13, 24, 27, 29 through 32, 36 and 43 as set forth below.

Listing of Claims:

1. (Currently Amended) A method for aligning a semiconductor device package with a carrier substrate for electrical interconnection therebetween, the method comprising: forming at least two channels through the semiconductor device package from a first major surface thereof to a second, opposing major surface thereof; providing a major surface of the carrier substrate with at least two alignment features including forming at least two holes in the carrier substrate, each of which are spaced and positioned in respective correspondence to one of the at least two channels; placing the semiconductor device package over the carrier substrate with the first major surface of the semiconductor package facing the major surface of the carrier substrate; and aligning the at least two channels formed in the semiconductor device package with the at least two alignment features of the carrier substrate; providing at least two pins, wherein at least one of the at least two pins includes a mechanical self-locking mechanism proximate at least one end thereof; placing the at least two pins through the at least two channels and into the at least two holes; and;

engaging a portion of at least one of the second major surface of the semiconductor device package and a second, opposing surface of the carrier substrate with the mechanical self-locking mechanism.

2-3. (Canceled)

4. (Currently Amended) The method of claim-3 1, wherein forming the at least two holes in the carrier substrate includes forming at least two blind holes therein.

5. (Canceled)

6. (Currently Amended) The method of claim-5 1, further comprising forming the at least two pins of a an electrically non-conductive material.

7. (Currently Amended) The method of claim 5 1, further comprising forming the at least two pins of an anti-static material.

8. (Currently Amended) The method of claim-5 1, further comprising affixing the at least two pins to both the semiconductor device package and to the carrier substrate.

9. (Withdrawn) The method of claim 8, wherein affixing the at least two pins to the semiconductor device package and to the carrier substrate includes thermally bonding the pins to at least one of the semiconductor device package and to the carrier substrate.

10. (Currently Amended) The method of claim-5 1, ~~further comprising wherein~~ forming at least one of the at least two ~~the~~ pins with a mechanical self-locking mechanism proximate at least one end thereof includes forming a mechanical self-locking mechanism at a first end and at a second end of the at least one pin.

11. (Currently Amended) The method of claim-~~5~~ 1, further comprising removing the at least two pins subsequent to the alignment of the at least two channels with the at least two alignment features.

12. (Currently Amended) The method of claim-~~3~~ 1, wherein placing the semiconductor device package over the carrier substrate is effected using a pick and place device.

13. (Currently Amended) The method of claim 12, wherein the pick and place device is used to align the semiconductor device package with the carrier substrate by carrying the at least two pins with the head of the pick and place device and inserting the at least two pins ~~carried by a head of the pick and place device~~ through the at least two channels and the at least two holes.

14 -19. (Canceled)

20. (Withdrawn) The method of claim 1, wherein the at least two channels are each defined by a diameter and wherein the method further comprises forming at least one of the at least two channels with a larger diameter than that of at least one other channel of the at least two channels.

21. (Withdrawn) The method of claim 20, wherein providing the major surface of the carrier substrate with at least two alignment features includes correlating a size of each of the at least two alignment features with a size of a respectively corresponding channel of the at least two channels.

22. (Withdrawn) The method of claim 1, wherein forming the at least two channels includes forming the at least two channels in an asymmetrical pattern on the semiconductor device package.

23. (Withdrawn) The method of claim 1, wherein forming the at least two channels includes forming at least one notch on a periphery of the semiconductor device package.

24. (Currently Amended) A method of testing a semiconductor device package having a plurality of discrete conductive elements disposed in a pattern on a surface thereof, the method comprising:
providing a carrier substrate having a plurality of terminal pads arranged in a pattern corresponding to a mirror image of the pattern of discrete conductive elements;
forming at least two channels in the semiconductor device package, each channel passing from a first surface thereof to a second, opposing surface thereof;
providing the carrier substrate with at least two alignment features including forming at least two holes in the carrier substrate, each of which are ~~each alignment feature~~ respectively spaced and positioned in correspondence to one of the at least two channels;
placing the semiconductor device package over the carrier substrate;
aligning each channel of the at least two channels formed in the semiconductor device package with a corresponding alignment feature of the at least two alignment features of the carrier substrate including placing pins through the at least two channels and into the at least two holes;
electrically contacting each discrete conductive element of the plurality with a terminal pad of the plurality; ~~and~~
passing at least one electrical signal between the semiconductor device package and the carrier substrate; and
removing the pins subsequent to the alignment of each of the at least two channels with a corresponding alignment feature of the at least two alignment features.

25-26. (Canceled)

27. (Currently Amended) The method of claim ~~26~~ 24, wherein forming at least two holes in the carrier substrate includes forming at least two blind holes.

28. (Canceled)

29. (Currently Amended) The method of claim ~~28~~ 24, further comprising forming the pins of an electrically non-conductive material.

30. (Currently Amended) The method of claim ~~28~~ 24, further comprising forming the pins of an anti-static material.

31. (Currently Amended) The method of claim ~~28~~ 24, further comprising affixing the pins to both the semiconductor device package and to the carrier substrate.

32. (Withdrawn) The method of claim 31, wherein affixing the pins to the semiconductor device package and to the carrier substrate includes thermally bonding the pins to at least one of the semiconductor device package and the carrier substrate.

33. (Previously Presented) The method of claim 29, further comprising forming a mechanical self-locking mechanism proximate at least one end of each pin.

34. (Canceled)

35. (Previously Presented) The method of claim 27, wherein placing the semiconductor device package over the carrier substrate includes using a pick and place device.

36. (Currently Amended) The method of claim 35, wherein the pick and place device is used to align the semiconductor device package with the carrier substrate by carrying the pins with the head of the pick and place device and placing the pins ~~carried by a head of the pick and place device~~ through the at least two channels and the at least two holes.

37-42. (Canceled)

43. (Withdrawn) The method of claim ~~25~~ 24, wherein the at least two channels are each defined by a diameter and wherein the method further comprises forming at least one of the at least two channels with a larger diameter than that of at least one other channel of the at least two channels.

44. (Withdrawn) The method of claim 43, wherein providing at least two alignment features on the carrier substrate includes correlating a size of each alignment feature of the at least two alignment features with a size of a corresponding channel of the at least two channels.

45. (Withdrawn) The method of claim 25, wherein forming the at least two channels includes forming the at least two channels in an asymmetrical pattern on the semiconductor device package.

46. (Withdrawn) The method of claim 25, wherein forming the at least two channels includes forming at least one notch on a periphery of the semiconductor device package.

47-62 (Canceled)